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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,208	05/14/2001	Nanette C. Jensen	10013325-1	9811

7590 08/22/2003

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EXAMINER
WEST, JEFFREY R

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Advisory Action	09/855,208	JENSEN ET AL.
	Examiner	**Art Unit**	
	Jeffrey R. West	2857	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 01 August 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may <u>only</u> be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

    (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

    (b) ☐ they raise the issue of new matter (see Note below);

    (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

    NOTE: *See Continuation Sheet*.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☐ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

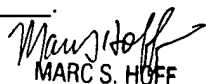   The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: _____.

    Claim(s) objected to: _____.

    Claim(s) rejected: _____.

    Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

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PTOL-303 (Rev. 04-01)   Advisory Action   Part of Paper No. 6

Continuation of 2: The proposed amendment changing the "setting of an operating current for the LED to the first current if the difference breaches the predefined difference threshold" to "setting of an operating current for the LED to the first current if the difference fails to exceed the predefined difference threshold" is a new issue not earlier presented and would require additional search and/or consideration.

Continuation of 5: Applicant argues the rejection of claims 1-20 under 35 U.S.C. 103(a) for several reasons. First, Applicant argues that the Examiner improperly uses Applicant's disclosure to teach the claimed limitations. Applicant also argues that the instant specification doesn't teach a relationship between the saturation level and a white level and that the invention of "Kerschner does not even mention saturation of the sensors."
In response, the Examiner first asserts that the instant specification is not used to teach the claimed invention. The claimed invention is taught by the combination of Kerschner, Roberts, and Uebbing that teaches comparing the light intensity to detect a condition of the sensors reaching a white point/level indicating a maximum white digital value. The instant invention specification only suggests the well-known relationship between a white level and saturation level.
Secondly, it is unclear to the Examiner how Applicant can argue that "the rejection of the present claims is improper to the extent that the Examiner relies on the present specification as teaching that a saturation level of a sensor is the equivalent to the white point" because "elements of the claims must be shown or suggested in the prior art, not Applicants disclosure" if Applicant then argues that this teaching is not present in Applicants disclosure.
Thirdly, the Examiner maintains that since Kerschner discloses comparing the light intensity to detect a condition of the sensors reaching a white point/level indicating a maximum white digital value, and since it is well-known in the art that the saturation levels of the light sensors correspond to the maximum white level, Kerschner also discloses using the comparison to detect when the white point/saturation level of the sensors is achieved. Applicant argues this conclusion stating, it "is not founded in any teaching of Kerschner" and "since the detection of the saturation of the sensors is not shown or suggested by the cited references, it is apparent that the rejection of claim 1 in this regard must be based upon the personal knowledge of the Examiner . . . Accordingly, Applicant expressly requests that either an affidavit be supplied by the Examiner as to the existence of facts or elements not shown or suggested by the references as described above, or that one or more reference be cited that show such facts or elements." The examiner maintains that the conclusion drawn above is founded in the cited prior art supplied with the final Office Action (see U.S. Patent Application Publication No. 2002/0159098 to Kleiman, U.S. Patent No. 5,166,811 to Nagano, U.S. Patent Application Publication No. 2002/0002410 to Tomita et al., and U.S. Patent No. 5,103,490 to McMillin).

Applicant then argues that "Uebbing does not specifically teach or suggest "obtaining the light output measures of two different pulse-width values and comparing the difference between these values to determine the percentage increase" as the Examiner contends. In fact, Uebbing merely discusses uniform illumination using LEDs for a print head---the apparatus of Uebbing doesn't even have sensors to measure the light output of the LEDs in the first place."
The Examiner maintains that Kerschner discloses comparing the light output intensity to a predefined threshold and, upon determining that the measured light intensity is greater than the predefined threshold, altering the current pulse width (i.e. time period) to decrease the light output intensity and, upon determining that the measured light intensity is less than the predefined threshold, altering the current pulse width to increase the light output intensity (column 5, lines 45-62). Kerschner then discloses directing the current driver to apply the altered current value to measure a second light output intensity and repeating the comparing, altering, and applying steps until the predefined threshold (i.e. optimum output) is reached (column 5, lines 62-65). Kerschner, however, discloses comparing the output value to the predetermined threshold rather than comparing the difference between first and second light outputs to the threshold to alter the current values by a predefined percentage.
Uebbing teaches a method and apparatus for improving the uniformity of an LED print head by compensating for the degradation in light output of a plurality of LEDs (column 4, lines 66-68) comprising obtaining the light output measures of two different pulse-width values (a first pulse width at a first time t and a second pulse width at a second different time 0, not pulses with two different widths) using a photodetector/sensor and comparing the difference between these values to determine the percentage increase, of the second measure relative the first measure, needed to meet the desired output level deviation/difference (in this case zero) (column 5, lines 1-22).
It would have been obvious to one having ordinary skill in the art to modify the invention of Kerschner to include comparing the difference between first and second light outputs to the threshold to alter the current values by a predefined percentage, as taught by Uebbing, because while the invention of Kerschner requires a trial-and-error repetition method to obtain a desired output, the invention of Uebbing suggests a method that would quickly and accurately determine the required change in intensity, and corresponding current modification, with minimal time and effort (column 5, lines 1-32).

Applicant further argues that the invention of "Uebbing teaches away from the concept of actually comparing measured values obtained using different currents applied to an LED to a difference threshold to determine a saturation of sensors. Specifically, Uebbing teaches estimating a degradation of the light output of the LEDs over time using predetermined equation. It does not teach finding a saturation value of an LED by comparing two measured light outputs with a predefined difference value" nor does it include any type of sensor. The Examiner maintains that the invention of Uebbing is not included to teach finding a saturation value of an LED but is only included to modify the invention of Kerschner to include an improved method for determining a required adjustment value. The Examiner also maintains that the estimation equation of Uebbing is only one embodiment of the invention. The invention of Uebbing also specifically discloses "a device for measuring light output" (column 2, lines 33-34) a "first measurement of the light output of [an] LED using a photodetector" (column 5, lines 13-14), and "[a]nother way to estimate the amount of age-caused degradation of the LEDs, without using Equation (3), is to measure the degradation in light output of a few selected LEDs. . ." (column 6, lines 9-12). (Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971)).